

along one of the faces of the lip and the front portion being along the front edge face, (ii) a first shoulder that extends generally away from the front edge face, the first shoulder having a holding surface that faces generally toward the lip, and (iii) a first bearing surface;

a wear member including (i) a second shoulder that is placed between the holding surface and the lip to hold the wear member and prevent release of the wear member in a direction away from the lip, and (ii) an opening having a second bearing surface; and

a lock received into the opening in the wear member so as to oppose the first and second bearing surfaces to prevent disconnection of the first and second shoulders and thereby retain the wear member to the boss.

75. (Thrice Amended) A wear assembly in accordance with claim 74 in which the boss includes a support surface, and the wear member includes an abutting surface to abut the support surface of the boss to restrict rearward movement of the wear member, wherein the abutting surface and the support surface are each generally transverse to the extension of the first shoulder away from the front edge face.

76. (Amended) A wear assembly in accordance with claim 75 in which the support surface is arcuate.

78. (Twice Amended) A wear assembly in accordance with claim 74 in which the first bearing surface is formed at a rear end of the boss.

fy 79. (Amended) A wear assembly in accordance with claim 74 in which the boss has a generally T-shaped coupling structure that includes the first shoulder.

fo 80. (Amended) A wear assembly in accordance with claim 79 in which the wear member has a generally T-shaped slot that includes the second shoulder, and the T-shaped coupling structure of the boss is received in the slot of the wear member.

81. (Thrice Amended) A wear assembly for an excavator having a lip with a front edge face for digging, the wear assembly comprising:

82 a boss adapted to be fixed to an excavator lip, the boss including a front structure with an inner surface that is bent and fixed along a face of the lip and the digging edge, a rear structure having a first shoulder that extends generally away from the digging edge, and a bearing surface, wherein the rear structure includes a rearwardly extending leg that substantially overlies the lip, and the front structure wraps around the digging edge to define a second leg;

a wear member including a second shoulder that engages the first shoulder to hold the wear member to the boss and prevent release of the wear member in a direction perpendicular to the extension of the front shoulder, an opening; and

a lock received into the opening in the wear member and in contact with the bearing surface of the boss to prevent disconnection of the first and second shoulders and thereby retain the wear member to the boss.

91. (Twice Amended) A wear assembly for an excavator having a lip with a front edge face for digging, the wear assembly comprising:

a boss adapted to be fixed to an excavator lip, the boss including a coupling structure having a holding surface in opposed relation to the lip of the excavator, a bearing surface, and a front portion that wraps around the digging edge;

a wear member received over the boss and including retaining members that are received between the holding surfaces and the lip of the excavator to retain the wear member to the boss in directions other than a longitudinal direction, and an opening; and

a lock received into the opening in the wear member and in contact with the bearing surface of the boss to prevent disconnection of the first and second shoulders and thereby retain the wear member to the boss.

103. (Twice Amended) A wear assembly for an excavator having a lip with a front edge face for digging, the wear assembly comprising:

a one-piece boss adapted to be fixed to an excavator lip, the boss including a front portion that wraps around the digging edge and forms a forwardly-facing bearing surface, a coupling structure with first shoulders extending away from the front edge face, and a rearwardly-facing bearing surface;

a wear member received over the boss and including a slot that engages with the coupling structure of the boss to permit only relative longitudinal movement between the wear member and the boss, an abutting surface to engage the forwardly-facing bearing face of the boss to limit rearward movement of the

Fp wear member relative to the boss, and an opening passing through the wear member; and

a lock received into the opening in the wear member and in contact with the rearwardly-facing bearing surface of the boss and a wall of the opening to prevent disconnection of the engaged slot and coupling structure.

F9 104. (Amended) A wear assembly in accordance with claim 103 in which the lock includes first and second bearing surfaces and an adjustment assembly selectively movable to vary the relative positions of the first and second bearing surfaces to eliminate looseness which may exist in mounting the wear member to the lip.

F10 108. (Twice Amended) A wear member for mounting to an excavator having a lip with an inner face, an outer face, a front edge face and at least one boss fixed to the lip, the wear member comprising:

an inner surface to face the lip;

a longitudinal slot for axially receiving the boss therein, the longitudinal slot having a central portion that opens in the inner surface and being partially defined by holding surfaces extending laterally outward from the central portion, wherein the holding surfaces are generally facing away from the lip for engaging the boss to generally permit only relative longitudinal movement between the wear member and the boss;

an opening passing through the wear member for receiving a lock;

_____ a first bearing surface associated with the opening and facing generally forward to engage the lock and thereby prevent removal for the wear member from the boss; and

_____ a second bearing surface facing generally rearward to engage the boss and restrict rearward movement of the wear member on the boss;

_____ the first and second bearing surfaces each being generally transverse to the longitudinal slot.

111. (Twice Amended) A one-piece boss to be fixed to an excavator lip having an inner face, an outer face and a front edge face for digging, wherein the boss is for mounting a wear member to the lip, the boss comprising (i) a coupling structure with shoulders extending rearwardly from the front edge face to engage a complementary structure of a wear member, (ii) an inner surface to be fixed to the lip, the inner surface having a front portion and a rear portion generally aligned with each other, and being bent so that the front portion extends generally transverse to the rear portion with the rear portion being along one of the faces of the lip and the front portion being along the front edge face, (iii) a forwardly facing first bearing surface to abut the wear member and resist rearwardly directed forces, and (iv) a rearwardly facing second bearing surface for contacting a lock securing the wear member to the boss, each of the first and second bearing surfaces being generally transverse to the extension of the shoulders extending from the front edge face.

F12

113. (New) A boss in accordance with claim 111 in which the front portion wraps around the front edge face so that the inner surface extends along the inner and outer surfaces of the lip.

F13

115. (Thrice Amended) A wear assembly for an excavator having a lip with an inner surface, an outer surface and a front edge face for digging, the wear assembly comprising:

a boss to be fixed to an excavator lip, the boss including a first shoulder spaced from the lip and a first bearing surface;

a wear member including a second shoulder that engages the first shoulder between the first shoulder and the lip to hold the wear member to the boss and prevent release of the wear member from the boss in a direction generally perpendicular to the lip, an opening, and a second bearing surface associated with the opening, wherein the first and second bearing surfaces face in opposite directions when the first and second shoulders are engaged; and

a lock received into the opening in the wear member, the lock being substantially contained to one side of the lip and between the first and second bearing surfaces to prevent disconnection of the first and second shoulders from each other and thereby retain the wear member on the boss, the lock having a first lock surface to oppose the first bearing surface, a second lock surface to oppose the second bearing surface, and an adjustment assembly selectively movable to vary the relative positions of the first and second bearing surfaces to thereby apply

F13 forces to the wear member on the boss that tend to tighten the mounting of the wear member on the boss.

F14 116. (Twice Amended) A wear assembly in accordance with claim 115 wherein the boss includes a front structure that wraps around the front edge face of the lip.

Please also add new claims 119-138 as follows.

119. (New) A wear assembly for attachment along a lip of an excavator comprising:

a boss fixed to the lip;

F15 a wear member having (i) a forwardly projecting working end, (ii) a rearwardly extending leg having an inner side adapted to face the lip, a rear wall generally transverse to the inner side, and a longitudinal slot open in the inner side and the rear wall of the leg to receive the boss and thereby provide support to the position of the wear member on the lip, and (iii) an opening; and

a lock received into the opening to retain the wear member to the lip, the lock including a body and an adjustment member movably secured to the body such that movement of the adjustment member relative to the body moves the wear member rearward to thereby tighten the mounting of the wear member on the lip.

120. (New) A wear assembly in accordance with claim 119 in which the body and adjustment member are threadedly coupled together.

121. (New) A wear assembly in accordance with claim 120 in which the adjustment member is moved forwardly relative to the body to push against the boss and thereby tighten the mounting of the wear member on the lip.

F15
122. (New) A wear assembly in accordance with claim 119 in which the body includes a threaded bore and the adjustment member is a threaded shank extending through the bore.

123. (New) A wear assembly in accordance with claim 119 in which the body includes a first bearing surface that presses against a wall of the opening and the adjustment member includes a second bearing surface that presses against a wall of the boss.

124. (New) A wear assembly in accordance with claim 119 in which the opening has a front portion and a rear portion, wherein the rear portion is narrower than the front portion and opens in the rear wall of the leg of the wear member, and the front portion includes at least one forwardly-facing bearing surface adjacent the rear portion to engage the lock.

125. (New) A wear assembly for attachment along a lip of an excavator comprising:

a boss fixed to the lip and having a front wall;

a wear member including (i) a forwardly projecting working end, (ii) a rearwardly extending leg having an inner side to face the lip, a rear wall generally transverse to the inner side, and a longitudinal slot open in the inner side and the rear wall of the leg to receive the boss and thereby provide support to the position

of the wear member on the lip, (iii) an opening, and (iv) a transverse bearing surface at a front end of the slot extending generally parallel to the front wall of the boss to abut said front wall; and

a lock removably received into the opening to engage the wear member and the boss and thereby releasably retain the wear member to the lip.

8/15
126. (New) A wear assembly in accordance with claim 125 in which the lock includes a body and an adjustment member movably secured to the body such that forward movement of the adjustment member relative to the body moves the wear member rearward to thereby tighten the mounting of the wear member on the lip.

127. (New) A wear assembly in accordance with claim 126 in which the body and adjustment member are threadedly coupled together and positioned such that one presses against the boss and one presses against the wear member.

128. (New) A wear assembly in accordance with claim 125 in which the opening has a front portion and a rear portion, wherein the rear portion is narrower than the front portion and opens in the rear wall of the leg of the wear member, and the front portion includes at least one forwardly-facing bearing surface adjacent the rear portion to engage the lock.

129. (New) A wear assembly for attachment along a lip of an excavator, the lip defining a front edge face for digging, the wear assembly comprising:

a boss fixed to the lip and having a front portion that wraps around the front edge face of the lip;

4/15
a wear member having a forwardly projecting working end, a rearwardly extending leg having an inner side adapted to face the lip, a rear wall generally transverse to the inner side, and a longitudinal slot open in the inner side and the rear wall of the leg to receive the boss and thereby provide support to the position of the wear member on the lip, and an opening extending through the wear member; and

a lock removably received into the opening to releasably retain the wear member to the lip.

130. (New) A wear assembly in accordance with claim 129 in which the boss includes a front wall, and the wear member includes a front bearing surface extending generally parallel to the front wall of the boss for abutting said front wall.

131. (New) A wear assembly in accordance with claim 130 in which the lock includes a body and an adjustment member movably secured to the body such that movement of the adjustment member relative to the body moves the wear member rearward to thereby tighten the mounting of the wear member on the lip.

132. (New) A wear assembly in accordance with claim 131 in which the body and adjustment member are threadedly coupled together.

133. (New) A wear assembly in accordance with claim 132 in which the body includes a threaded bore and the adjustment member is a threaded shank extending through the bore.

134. (New) A wear assembly in accordance with claim 133 in which the body includes a bearing surface that presses against a wall of the opening and the adjustment member includes a bearing surface that presses against a wall of the boss.

2
15
135. (New) A wear member for mounting on a front lip of an excavator having a fixed boss, the wear member comprising (i) a forwardly projecting working end, (ii) a rearwardly extending leg having an inner side to face the lip, a rear wall generally transverse to the inner side, and a longitudinal slot open in the inner side and the rear wall of the leg to receive the boss and thereby provide support to the position of the wear member on the lip, (iii) a lock receiving opening extending through the wear member and having a first forwardly-facing bearing surface extending generally transverse to the lip, and (iv) a second rearwardly-facing bearing surface extending generally transverse to the lip at a front end of the slot for abutting against at least a substantial portion of a front wall of the boss.

136. (New) A wear member in accordance with claim 135 in which the opening has a front portion and a rear portion, wherein the rear portion is narrower than the front portion and opens in the rear wall of the leg of the wear member, and the front portion includes at least one forwardly-facing bearing surface adjacent the rear portion to engage the lock.

75
137. (New) A wear member in accordance with claim 135 in which the working end includes a nose for mounting a point of an excavating tooth.

138. (New) A wear assembly in accordance with claim 77 wherein the boss wraps completely around the front edge face of the lip such that the inner surface extends along the inner and outer surfaces of the lip.

REMARKS

Claims 74, 75, 76, 78-81, 91, 103, 104, 108, 111, 113, 115 and 116 have been amended and claims 119-137 added. The amendments made to the existing claims were made in an effort to better define the invention and are not made in an effort to further distinguish the invention over the prior art. These claims are still considered allowable for the reasons given in the Amendment filed December 10, 2002. Reconsideration of the application and allowance of claims 74-138 along with claims 1-73 is requested.

Respectfully submitted,

Dated: March 25, 2003

By: Steven P. Schad
Steven P. Schad
Registration No. 32,550

BANNER & WITCOFF, LTD.
1001 G Street, N.W.
Eleventh Floor
Washington, D.C. 20001-4597
(202) 508-9100

51291.81516
09/368,503